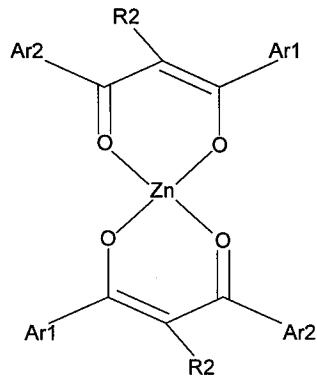
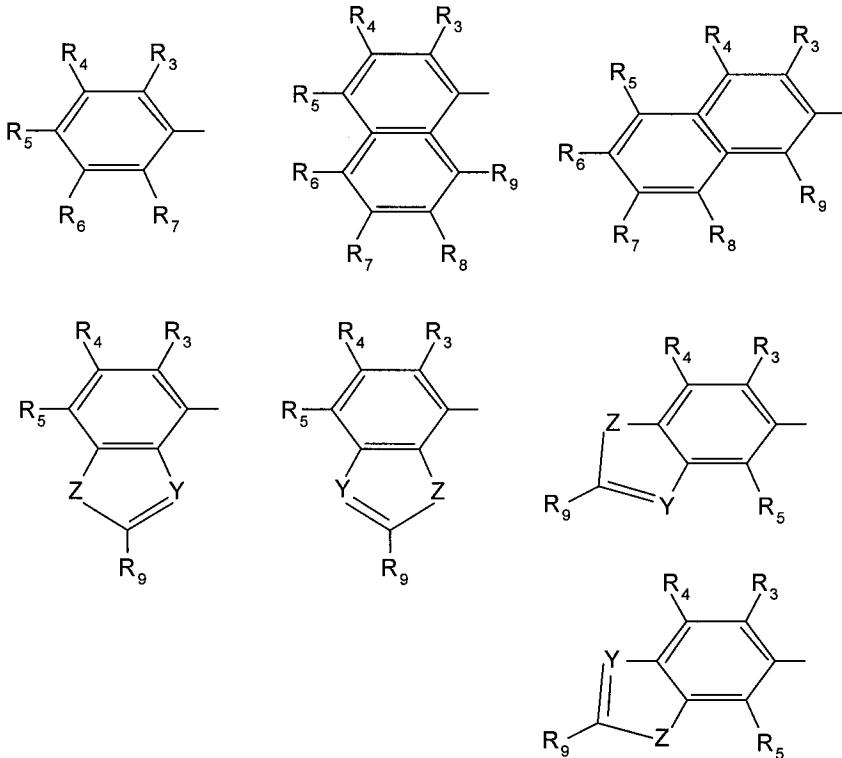


## **STATUS OF CLAIMS**

1. (Withdrawn) A method of treating cancer or a tumor comprising administering to a host in need of treatment an effective amount of at least one HIF-1 inhibitor composition, wherein the HIF-1 inhibitor composition comprises a bidentate zinc chelate.
2. (Withdrawn) The method of claim 1, wherein the bidentate zinc chelate comprises a beta-diketone bidentate zinc chelate compound.
3. (Withdrawn) The method of claim 2, wherein the beta-diketone bidentate zinc chelate compound has the following structure:



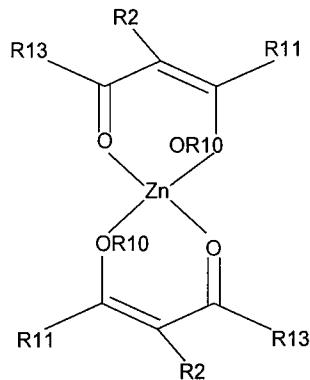
wherein Ar<sub>1</sub> and Ar<sub>2</sub> each are individually selected from at least one of the following :



wherein R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, R<sub>5</sub>, R<sub>6</sub>, R<sub>7</sub>, R<sub>8</sub>, and R<sub>9</sub> are each individually selected from at least one of: hydrogen, alkyl groups, aryl groups, halo groups, hydroxy groups, alkoxy groups, alkylamino groups, dialkylamino groups, acyl groups, carboxyl groups, carboamido groups, sulfonamide groups, aminoacyl groups, amide groups, amine groups, nitro groups, organo selenium compounds, hydrocarbons, and cyclic hydrocarbons.

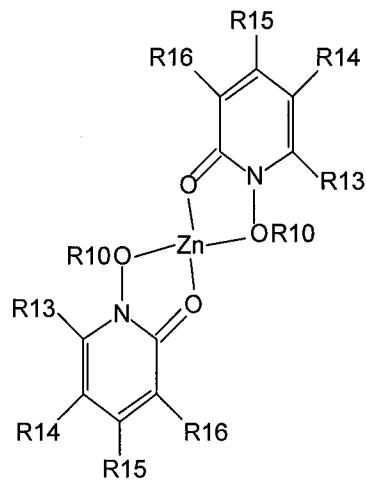
4. (Withdrawn) The method of claim 3, wherein the beta-diketone compound comprises a dibenzoylmethane-type compound.
5. (Withdrawn) The method of claim 3, wherein the dibenzoylmethane-type compound comprises dibenzoylmethane.

6. (Withdrawn) The method of claim 1, wherein the bidentate zinc chelate has the following structure:



wherein R<sub>10</sub> is selected from hydrogen and a sulfonyl group, and wherein R<sub>2</sub>, R<sub>11</sub>, and R<sub>13</sub> are each individually selected from hydrogen, alkyl groups, aryl groups, halo groups, hydroxy groups, alkoxy groups, alkylamino groups, dialkylamino groups, acyl groups, carboxyl groups, carboamido groups, sulfonamide groups, aminoacyl groups, amide groups, amine groups, nitro groups, organo selenium compounds, hydrocarbons, and cyclic hydrocarbons.

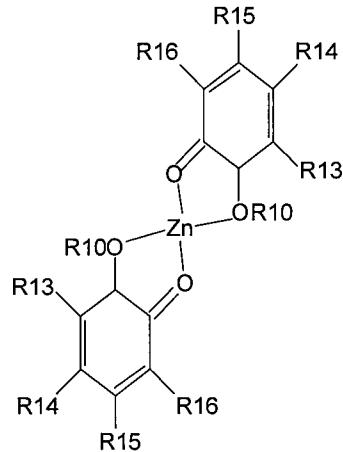
7. (Withdrawn) The method of claim 1, wherein the bidentate zinc chelate has the following structure:



wherein R<sub>10</sub> is selected from hydrogen and a sulfonyl group, and wherein R<sub>13</sub>, R<sub>14</sub>, R<sub>15</sub>, and R<sub>16</sub> are each individually selected from hydrogen, alkyl groups, aryl groups, halo groups, hydroxy groups, alkoxy groups, alkylamino groups, dialkylamino groups, acyl groups, carboxyl

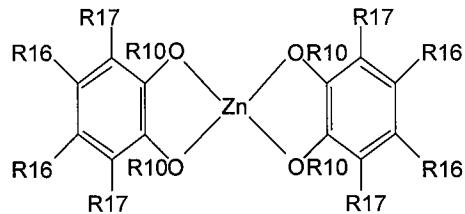
groups, carboamido groups, sulfonamide groups, aminoacyl groups, amide groups, amine groups, nitro groups, organo selenium compounds, hydrocarbons, and cyclic hydrocarbons.

8. (Withdrawn) The method of claim 1, wherein the bidentate zinc chelate has the following structure:



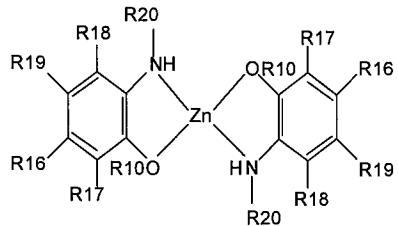
wherein R10 is selected from hydrogen and a sulfonyl group, and wherein R13, R14, R15, and R16 are each individually selected from hydrogen, alkyl groups, aryl groups, halo groups, hydroxy groups, alkoxy groups, alkylamino groups, dialkylamino groups, acyl groups, carboxyl groups, carboamido groups, sulfonamide groups, aminoacyl groups, amide groups, amine groups, nitro groups, organo selenium compounds, hydrocarbons, and cyclic hydrocarbons.

9. (Withdrawn) The method of claim 1, wherein the bidentate zinc chelate has the following structure:



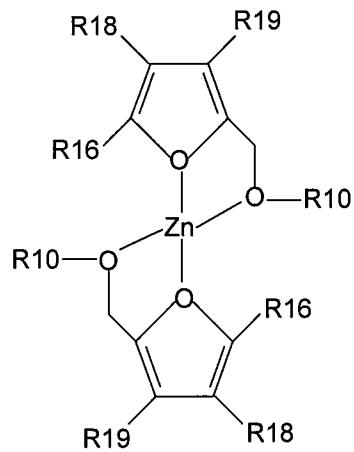
wherein R10 is selected from hydrogen and a sulfonyl group, and wherein R16 and R17 are each individually selected from hydrogen, alkyl groups, aryl groups, halo groups, hydroxy groups, alkoxy groups, alkylamino groups, dialkylamino groups, acyl groups, carboxyl groups, carboamido groups, sulfonamide groups, aminoacyl groups, amide groups, amine groups, nitro groups, organo selenium compounds, hydrocarbons, and cyclic hydrocarbons.

10. (Withdrawn) The method of claim 1, wherein the bidentate zinc chelate has the following structure:



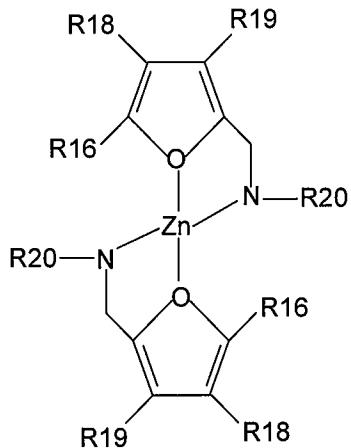
wherein R10 and R20 are selected from hydrogen and a sulfonyl group, and wherein R16, R17, R18, and R19 are each individually selected from hydrogen, alkyl groups, aryl groups, halo groups, hydroxy groups, alkoxy groups, alkylamino groups, dialkylamino groups, acyl groups, carboxyl groups, carboamido groups, sulfonamide groups, aminoacyl groups, amide groups, amine groups, nitro groups, organo selenium compounds, hydrocarbons, and cyclic hydrocarbons.

11. (Withdrawn) The method of claim 1, wherein the bidentate zinc chelate has the following structure:



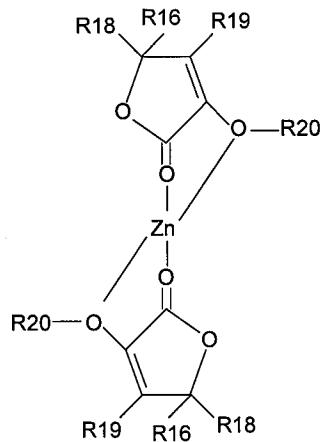
wherein R10 is selected from hydrogen and a sulfonyl group, and wherein R16, R18, and R19 are each individually selected from hydrogen, alkyl groups, aryl groups, halo groups, hydroxy groups, alkoxy groups, alkylamino groups, dialkylamino groups, acyl groups, carboxyl groups, carboamido groups, sulfonamide groups, aminoacyl groups, amide groups, amine groups, nitro groups, organo selenium compounds, hydrocarbons, and cyclic hydrocarbons.

12. (Withdrawn) The method of claim 1, wherein the bidentate zinc chelate has the following structure:



wherein R20 is selected from hydrogen and a sulfonyl group, and wherein R16, R18, and R19 are each individually selected from hydrogen, alkyl groups, aryl groups, halo groups, hydroxy groups, alkoxy groups, alkylamino groups, dialkylamino groups, acyl groups, carboxyl groups, carboamido groups, sulfonamide groups, aminoacyl groups, amide groups, amine groups, nitro groups, organo selenium compounds, hydrocarbons, and cyclic hydrocarbons.

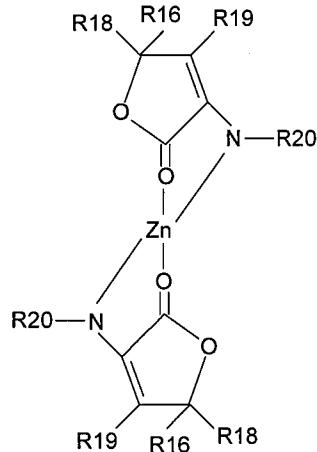
13. (Withdrawn) The method of claim 1, wherein the bidentate zinc chelate has the following structure:



wherein R10 is selected from hydrogen and a sulfonyl group, and wherein R16, R18, and R19 are each individually selected from hydrogen, alkyl groups, aryl groups, halo groups, hydroxy groups, alkoxy groups, alkylamino groups, dialkylamino groups, acyl groups, carboxyl groups,

carboamido groups, sulfonamide groups, aminoacyl groups, amide groups, amine groups, nitro groups, organo selenium compounds, hydrocarbons, and cyclic hydrocarbons.

14. (Withdrawn) The method of claim 1, wherein the bidentate zinc chelate has the following structure:



wherein R20 is selected from hydrogen and a sulfonyl group, and wherein R16, R18, and R19 are each individually selected from hydrogen, alkyl groups, aryl groups, halo groups, hydroxy groups, alkoxy groups, alkylamino groups, dialkylamino groups, acyl groups, carboxyl groups, carboamido groups, sulfonamide groups, aminoacyl groups, amide groups, amine groups, nitro groups, organo selenium compounds, hydrocarbons, and cyclic hydrocarbons.

15. (Withdrawn) The method of claim 1, wherein the cancer or tumor is selected from the group consisting of bladder cancer, breast cancer, colorectal cancer, endometrial cancer, head and neck cancer, leukemia, lung cancer, lymphoma, melanoma, non-small-cell lung cancer, ovarian cancer, prostate cancer, testicular cancer, uterine cancer, cervical cancer, thyroid cancer, gastric cancer, brain stem glioma, cerebellar astrocytoma, cerebral astrocytoma, ependymoma, Ewing's sarcoma family of tumors, germ cell tumor, extracranial cancer, Hodgkin's disease, leukemia, acute lymphoblastic leukemia, acute myeloid leukemia, liver cancer, medulloblastoma, neuroblastoma, brain tumors generally, non-Hodgkin's lymphoma, osteosarcoma, malignant fibrous histiocytoma of bone, retinoblastoma, rhabdomyosarcoma, soft tissue sarcomas generally, supratentorial primitive neuroectodermal and pineal tumors, visual pathway and hypothalamic glioma, Wilms' tumor, acute lymphocytic leukemia, adult acute myeloid leukemia, adult non-Hodgkin's lymphoma, chronic lymphocytic leukemia, chronic myeloid leukemia, esophageal cancer, hairy cell leukemia, kidney cancer, multiple myeloma,

oral cancer, pancreatic cancer, primary central nervous system lymphoma, skin cancer, and small-cell lung cancer.

16. (Withdrawn) The method of claim 1, further comprising treating the host with at least one conventional anticancer treatment chosen from radiation and chemotherapy.

17. (Withdrawn) The method of claim 1, further comprising treating the host with at least one conventional anticancer agent selected from an antibiotic, anti-inflammatory, anti-oxidant, analgesic, radioisotope, nascopine, paclitaxel, nocodazole, vinca alkaloids, adriamycin, alkeran, Ara-C, BiCNU, busulfan, CCNU, carboplatinum, cisplatinum, cytoxan, daunorubicin, DTIC, 5-FU, fludarabine, hydrea, idarubicin, ifosfamide, methotrexate, mithramycin, mitomycin, mitoxantrone, nitrogen, mustard, velban, vincristine, VP-16, gemcitabine, herceptin, irinotecan, camptosar, CPT-11, leustatin, navelbine, rituxan, STI-571, taxotere, topotecan, hycamtin, xeloda capecitabine, zevelin, and combinations thereof.

18. (Withdrawn) The method of claim 2, wherein the beta-diketone compound includes pharmaceutically acceptable salts of the beta-diketone compounds, pharmaceutically acceptable prodrugs of the beta-diketone compounds, beta-diketone compound derivatives, and combinations thereof.

19. (Withdrawn) The method of claim 18, wherein the beta-diketone compound includes a dibenzoylmethane-type compound, and wherein the dibenzoylmethane-type compound includes pharmaceutically acceptable salts of the dibenzoylmethane-type compounds, pharmaceutically acceptable prodrugs of the dibenzoylmethane-type compounds, dibenzoylmethane-type compound derivatives, and combinations thereof.

20. (Withdrawn) A chemopreventative method of prophylactically treating cancers or tumors comprising administering to a host in need of treatment an effective amount of at least one bidentate zinc chelate of claims 3 and 6 through 14.

21. (Withdrawn) The chemopreventative method of claim 20, wherein the bidentate zinc chelate includes pharmaceutically acceptable salts of the bidentate zinc chelate, pharmaceutically acceptable prodrugs of the bidentate zinc chelate, bidentate zinc chelate

derivatives, and combinations thereof.

22. (Withdrawn) The chemopreventative method of claim 20, wherein the bidentate zinc chelate includes a hydrolysis, an oxidation, or a reduction reaction product of the bidentate zinc chelate.

23. (Withdrawn) A pharmaceutical composition comprising at least one bidentate zinc chelate in combination with a pharmaceutically acceptable carrier, wherein the at least one bidentate zinc chelate is present in a dosage level effective to treat cancers or tumors of claims 3 and 6 through 14.

24. (Withdrawn) The pharmaceutical composition of claim 23, wherein the bidentate zinc chelate includes pharmaceutically acceptable salts of the bidentate zinc chelate, pharmaceutically acceptable prodrugs of the bidentate zinc chelate, bidentate zinc chelate derivatives, and combinations thereof.

25. (Withdrawn) The pharmaceutical composition of claim 23, wherein the pharmaceutical composition can be administered orally, rectally, parenterally, intrasystemically, intravaginally, intraperitoneally, topically, and buccally.

26. (Withdrawn) The pharmaceutical composition of claim 23, wherein the bidentate zinc chelate includes a hydrolysis, a oxidation, or a reduction reaction product of the bidentate zinc chelate.

27. (Withdrawn) A method for the treatment or prevention of a hypoxia-related pathology comprising: administering to a host in need of such treatment an HIF-1 inhibiting amount of at least one bidentate zinc chelate of claims 3 and 6 through 14.

28. (Original) A method of modulating HIF-1 activity in a cell comprising: contacting the cell with an HIF-1 inhibiting amount of at least one bidentate zinc chelate of claims 3 and 6 through 14.

29. (Original) A method of downregulating HIF-1 activity in a cell comprising: contacting the cell with an HIF-1 inhibiting amount of at least one bidentate zinc chelate of claims 3 and 6

through 14.

30. (Withdrawn) A method of treating or preventing cancer or a tumor in a host comprising administering to the host a HIF-1 inhibiting amount of at least one bidentate zinc chelate of claims 3 and 6 through 14.

31. (Original) A method of modulating gene transcription in a cell comprising contacting the cell with an HIF-1 inhibiting amount of at least one bidentate zinc chelate of claims 3 and 6 through 14.

32. (Original) The method of claim 31, wherein the cell is a cancer cell.

33. (Original) The method of claim 31, wherein the cell is a tumor cell.